Pennsylvania.—Wysox, 10th, 11th; Pittsburg, 19th.

South Carolina .- Stateburg, 1st.

Tennessee.—Ashwood, 6th; Nashville, 23d; Austin, 30th.
Texas.—Fort Davis, 3d; Cleburne, 5th, 27th; El Paso and
Rio Grande City, 8th; Brownsville, 8th, 20th; San Antonio,
13th; New Ulm, 19th; Fort Concho, 24th.

Utah.—Salt Lake City, 4th, 13th, 31st; Nephi, 9th, 17th.

Vermont.—Charlotte, 10th.
Virginia.—Wytheville, 1st; Variety Mills, 25th.
Wisconsin.—Prairie du Chien, 6th; Embarras, 8th.
Wyoming.—Fort Bridger, 15th, 20th.

### SLEET.

Pike's Peak, Colorado, 1st, 2d, 6th, 7th, 10th, 12th, 13th, 15th, 16th, 17th.

Fort Buford, Dakota, 7th.

Boisé City, Idaho, 22d. Anna, Illinois, 7th.

Cresco, Iowa, 7th.

Fort Scott and Dodge City, Kansas, 7th.

Eastport, Maine, 2d.

Alpena, Michican, 7th. Escanaba, Michigan, 8th.

Saint Vincent and Saint Paul, Minnesota, 8th.

Lamar, Missouri, 7th.

Mount Washington, New Hampshire, 8th.

Garrettsville, Ohio, 9th.

Cleveland, Ohio, 9th, 10th.

### PRECIPITATION FROM A CLOUDLESS SKY.

Humphrey, New York: snow fell from a cloudless sky at 9.30 p. m. of the 10th.

El Paso, Texas: light rain fell from 8.45 to 8.53 p. m. on the 7th, when the sky overhead was perfectly clear, and no clouds were observed within 45° of the zenith.

# COTTON REGION REPORTS.

A system of temperature and rainfall observations was begun in the spring of 1882 in the cotton-growing districts of the South. These observations have been continued since in each year from April to October, inclusive, and were resumed May 1, 1885, one month later than in the preceding years.

In the following table are given the average rainfall and the means of the maximum and minimum temperatures for the several districts as shown on the chart issued with the REVIEW for April, 1882. For the purpose of comparison the averages for these districts during the three preceding years are also given. In the districts of Little Rock, New Orleans, Memphis, and Vicksburg, large deficiencies in the rainfall are shown, while a marked excess occurs in the districts of Wilmington, Atlanta, Augusta, and Montgomery. The mean of the maximum and minimum temperatures differs but slightly from the average for the previous years.

Temperature and rainfall data for the cotton districts. May, 1885.

Districts.	Rainfall.			Temperature.							
			Departures.	Maximum.			Minimum.				
				Meun for of three ceding y	Mean for May, 1885.	Departure	Mean for May of three pre- ceding years.	Mean for May, 1885.	o Departures.	Extremes for May, 1885.	
		Aver			Mear					Max.	Min.
New Orleans		3.12 3.83	- 3.12 + 0.85	83.9 86.0	82.9 84.0	— 1,0 — 2,0	63.0	61.4 62.1	- 1.6	105	57.6
Charleston	3.43	3.56	+ 0.13 + 3.38	83.5 81.2	82.4	- r.r	59.6	59 O	+ 0.2 - 0.6 + 0.2		57.9 40.0
Wilmington	2.70	6.76	+ 4.06	81.3	79.9 79.9	1.4	56.4 56.1	56.6 56.2	+ o.t	96 94	27.0 41.7
Memphis Galveston	6.54	2.82 6.49	- 2.49 - 0.05	79.5	78.5 82.1	- 1.0 - 2.3	56.6 62.5	55.9 61.1	- 0.7 - 1.4	94 97 96 96 95 97	54 · 2
Vicksburg Montgomery .	. 6.:4	4.75 5.99	- 1.39 + 3.68	82.2 84.1	81.2 81.8	- 1.0 - 2.3	60.7 58.2	62.5 60.4	+ 1.8	90	54 .
Augusta	. 2.45	5.32	+ 2.87	83.7	82.3	— I.Ā	58.9	58.4	- o.5	95 95	54 · 54 · 47
Little Rock Mobile		2.5I 4.35	一 4.45 十 0.52	79.7 82.9	80.0	— 0.3 — 1.8	55•5 59•4	54.5	+ 2.8	96	47. 58.

## WINDS.

The most frequent directions of the wind during May, 1885, are shown on chart ii. by arrows flying with the wind; they are also given in the table of miscellaneous data. In the extreme northwest, upper Mississippi and Missouri valleys, the prevailing winds were from north to northwest; along the south Atlantic and east Gulf coasts they were from southeast to southwest; on the middle Atlantic coast they were from east to northeast; in other districts they were variable.

#### HIGH WINDS.

(In miles per hour.)

Wind-velocities of fifty miles, or more, per hour were re-

ported as follows:

Mount Washington, New Hampshire, 98 nw., 2d; 85 nw., 3d; 53 s., 7th; 70 s., 8th; 63 nw., 15th; 57 w., 16th; 50 nw., 19th; 57 nw., 20th; 70 nw., 26th; 62 nw., 27th; 60 se., 31st. Pike's Peak, Colorado, 74 sw., 15th; 64 sw., 18th; 72 sw., 22d; 56 nw., 28th.

Block Island, Rhode Island, 52 ne., 14th. Dodge City, Kansas, 58 se., 15th. Indianola, Texas, 50 n., 8th; 50 ne., 17th.

Sandy Hook, New Jersey, 50 e., 1st.

# LOCAL STORMS AND TORNADOES.

Ogreeta, Cherokee county, North Carolina: a tornado occurred three miles south of this place at 11.45 a.m. on the 1st. The tornado-cloud was funnel-shaped and was accompanied by rain and hail. Considerable damage was done.

Portsmouth, North Carolina: a violent thunder-storm, accompanied by high wind and heavy rain, prevailed from 7.45 to 8.35 p. m. on the 1st. A number of houses were slightly damaged.

The "New York Herald," of May 8, 1885, contained the following:

LITTLE ROCK, ARK., May 7, 1885.—Reports from Indian Territory state that one of the most fearful storms ever known in that section occurred near Mount Scott on the 5th. It began in the evening with a southerly wind with a force of eighty miles an hour, and increased through the night, with terrific thunder and lightning and a driving rain. The forest for miles was swept away by the wind, and the destruction of everything in its broad path is complete. In localities further north the destruction of cabins and dug-outs, occupied by cattle herders, is reported, and several lives are said to have been lost.

New Market, Madison county, Alabama: a tornado occurred at this place at 6.30 p.m. on the 6th. The tornado-cloud was funnel-shaped and moved in a path N. 45° E. for a distance of nine miles; it was but a few seconds in passing a given point. The masonic temple, a church, and some other buildings were destroyed, entailing a loss aggregating \$20,000.

Buchanan, Haralson county, Georgia: a tornado occurred six miles east of this place at 9 p.m. on the 9th. It moved N. 45° E., and was most destructive in a track about five hundred feet wide. Hail preceded the tornado and rain fell both before and after it. Three houses were destroyed and others damaged; several persons were injured.

Warren, Lincoln county, Nebraska: at 2.30 p. m. on the 15th a tornado occurred. The cloud was funnel-shaped and moved N. 30° E. for a distance of two miles. Two bouses were

Kingman, Kingman county, Kansas: a tornado occurred west of this place at 5 p. m. on the 15th. The cloud was funnel-shaped and moved in a northeasterly direction for a distance of one and one-half miles, the width of the tornado's path being about three hundred and thirty feet. Several buildings were destroyed. The tornado was followed by heavy rain. Another tornado occurred at Kingman on the 16th, at 6 p. m., causing but slight damage.

At 4 p. m. on the 15th, a tornado occurred in the eastern part of Rooks county, Kansas. It moved in a north-northeasterly direction for a distance of eighteen miles, at a velocity of about forty miles per hour. The width of destructive path was from 1,320 to 2,640 feet. Rain and hail fell both before